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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/591,577

Filing Date: June 09, 2000

Appellant(s): ELDERING ET AL.

Andrew W. Spicer
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 12, 2009 appealing from the Office action mailed June 19, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,463,585	HENDRICKS et al.	10-2002
6,120,300	HO et al.	9-2000
5,835,905	PIROLI et al.	11-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 133-139 and 152-159 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. US 6,463,585 in view of Ho et al. (6,120,300) further in view of Pirolli et al. 5,835,905.

Regarding claims 133 and 134, Hendricks teach accessing a plurality of consumer transaction records corresponding to a plurality of consumers and demographic information records corresponding to at least some of the plurality of consumers (see col. 4 lines 12-17, col. 54-67, col. 5 lines 1-19, col. 11 lines 31-40, col. 20 lines 4-27, col. 26 line 48 to col. 27 line 6); Hendricks teaches determining characteristic of the consumer or generating a simulated profile *using an algorithm that analyzes access history and viewing habits (based on psychological or sociological or behavior)* (using test information generated from a statistically significant number of viewers, the simulated profile algorithm *estimates the viewer's age, education, sex and other relevant information*) (col. 66 line 53 to col. 67 line 4); retrieving at least one target consumer characteristics from an advertiser that has been selected at the discretion of the advertiser (see col. 29 line 5-44, col. 30 lines 22-64, col. 31 lines 28-55); generate inferred

transaction characteristics of the consumer; generating inferred (*judgment based from facts or observation*) consumer characteristics of at least one of the consumers by associating the inferred transaction characteristics with demographic information records and determining applicability of an advertisement to at least one of the consumers by correlating the inferred market characteristics (see col. 35 lines 1-15, col. 44 lines 7-23, col. 66 line 27 to col. 67 line 4, col. 67 lines 53-62, col. 68 lines 48-55, col. 70 line 57 to col. 71 line 48). Ho teaches heuristically determining user's characteristics by statistics based on the preference of similar students (see col. 7 lines 5-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use heuristic rules to determine the consumer characteristics of Hendricks in order to estimate or predict the unknown result (inferred characteristics) based on knowledge of prior results, as in Ho. Hendricks also failed to explicitly teach retrieving pre-defined rules. Pirolli teaches use of pre-defined or pre-determined heuristic rules applied to characteristics to determine the category of a page (see col. 6 line 59 to col. 7 line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to pre-define the rule of Hendricks in order to automatically determine the unknown result based on the prior results.

Regarding claims 135-139, Hendricks teaches wherein the plurality of transaction includes purchase transactions (see col. 20 lines 20-34; wherein the demographic information is stored in a private consumer demographic database; the demographic information includes demographic location (see col. 5 lines 7-14, col. 29 lines 6-32); the demographic information stored in private database (see col. 11 lines 31-40, col. 29 lines 6-32, col. 44 lines 7-23); wherein the set of consumers are identified anonymously (see col. 44 lines 7-67).

Regarding claims 152, Hendricks teaches the target consumer characteristics includes target demographic characteristic and target purchase characteristics (see col. 35 lines 15-65).

Regarding claims 153 and 155, Hendricks teach accessing a plurality of consumer transaction records corresponding to a plurality of consumers and demographic information records corresponding to at least some of the plurality of consumers (see col. 4 lines 12-17, col. 54-67, col. 5 lines 1-19, col. 11 lines 31-40, col. 20 lines 4-48, col. 26 line 48 to col. 27 line 6); Hendricks teaches determining characteristic of the consumer or generating a simulated profile *using an algorithm that analyzes access history and viewing habits (based on psychological or sociological or behavior)* (using test information generated from a statistically significant number of viewers, the simulated profile algorithm *estimates the viewer's age, education, sex and other relevant information*) (col. 66 line 53 to col. 67 line 4); retrieving at least one target consumer characteristics from an advertiser that has been selected at the discretion of the advertiser (see col. 29 line 5-44, col. 30 lines 22-64, col. 31 lines 28-55); generate inferred transaction characteristics of the consumer; generating inferred (*judgment based from facts or observation*) consumer characteristics of at least one of the consumers by associating the inferred transaction characteristics with demographic information records and determining applicability of an advertisement to at least one of the consumers by correlating the inferred market characteristics (see col. 35 lines 1-15, col. 44 lines 7-23, col. 66 line 27 to col. 67 line 4, col. 67 lines 53-62, col. 68 lines 48-55, col. 70 line 57 to col. 71 line 48). Ho teaches heuristically (heuristic rule is self-learning approach based on knowledge of prior results based on experiments conducted in statistics and other fields) determining user's characteristics by **statistics** based on the preference of similar students (obtained through academic research (see

col. 7 lines 5-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use heuristic rules to determine the consumer characteristics of Hendricks in order to estimate or predict the unknown result (inferred characteristics) based on knowledge of prior results, as in Ho. Hendricks also failed to explicitly teach retrieving pre-defined rules. Pirolli teaches use of pre-defined or pre-determined heuristic rules applied to characteristics to determine the category of a page (see col. 6 line 59 to col. 7 line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to pre-define the rule of Hendricks in order to automatically determine the unknown result based on the prior results.

Regarding claim 154, Hendricks teaches the target consumer characteristics includes target demographic characteristic and target purchase characteristics (see col. 35 lines 15-65).

Regarding claims 156-159, Hendricks teaches wherein the plurality of transaction includes purchase transactions (see col. 20 lines 20-34; wherein the demographic information is stored in a private consumer demographic database; the demographic information includes demographic location (see col. 5 lines 7-14, col. 29 lines 6-32); the demographic information stored in private database (see col. 11 lines 31-40, col. 29 lines 6-32, col. 44 lines 7-23); wherein the set of consumers are identified anonymously (see col. 44 lines 7-67).

(10) Response to Argument

Appellant argues that the combination of Hendricks, Ho and Pirolli does not teach or suggest *psychological or sociological studies* nor does such combination teach the use of *pre-defined heuristic rules*. Appellant states that the examiner explains that psychological or sociological study is interpreted to mean behavioral study. Appellant further argues that

Hendricks does not teach a "study" let alone a behavioral study; rather Hendricks uses information from previous users to generate an estimation of a particular viewer's demographics. Examiner agrees with Appellant that the psychological or sociological study is understood to mean behavioral study. Examiner would like to point out that Appellant never provided a clear meaning of the term "*psychological study*" or "*sociological study*".

Before addressing Appellant's argument, Examiner points out the definition of the terms "psychological or sociological study" and "heuristic rule".

Per "http://encarta.msn.com/encyclopedia_761576533/psychology.html": definition of **Psychology**; the scientific study of behavior and the mind. This definition contains three elements. The first is that psychology is a *scientific* enterprise that obtains knowledge through systematic and objective methods of observation and experimentation. Second is that psychologists study *behavior*, which refers to any action or reaction that can be measured or observed—such as the blink of an eye, an increase in heart rate, or the unruly violence that often erupts in a mob. Third is that psychologists study the *mind*, which refers to both conscious and unconscious mental states. These states cannot actually be seen, only inferred from observable behavior.

heuristic rule Also found in: Encyclopedia, Wikipedia

For heuristics in computer science, A **heuristic** is a method for helping in solving of a problem, commonly informal. It is particularly used for a method that often rapidly leads to a solution that is usually reasonably close to the best possible answer. Heuristics are "rules of thumb, educated guesses, intuitive judgments or simply *common sense*. In more precise terms, heuristics stand for strategies using readily accessible though

loosely applicable information to control problem-solving in human beings and machine[sic]".

As disclosed by Appellant specifications:

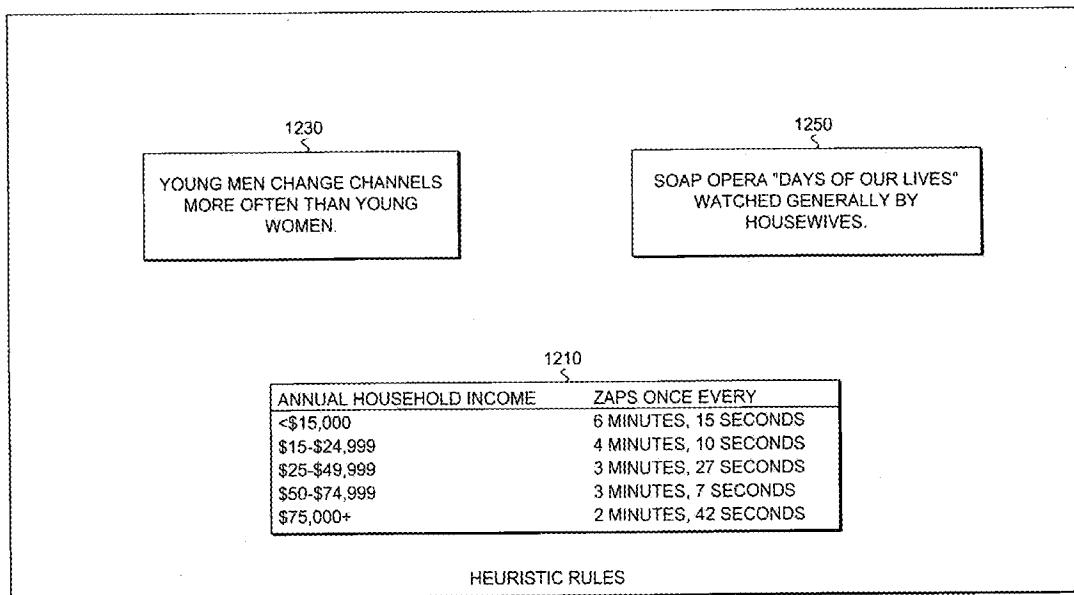


FIG. 12A

[0116] FIG. 12A illustrates sets of logical heuristics rules that form part of the heuristic rules 460. In a preferred embodiment, logical heuristic rules are obtained from sociological or psychological studies. **Two types of rules are illustrated in FIG. 12A. The first type links an individual's viewing characteristics to demographic characteristics such as gender, age, and income level.** A channel changing rate rule 1230 attempts to determine gender based on channel change rate. **An income related channel change rate rule 1210 attempts to link channel change rates to income brackets.** **A second type of rules links particular programs to particular audience, as illustrated by a gender determining rule 1250 which links the program category 444/sub-category 446 with a gender.** The result of the application of the logical heuristic rules illustrated in FIG. 12A are probabilistic determinations of factors including gender, age, and income level. Although a specific set of logical heuristic rules has been used as an example, a wide number of types of logical heuristic rules can be used to realize the present invention. In addition, these rules can be changed based on learning within the system or based on external studies that provide more accurate rules.

Based on fig. 12, one heuristic rules is that “young men change channels more often than young women” and another rule is that “soap opera “days of our lives” watched generally by housewives”. Accordingly (as understood by Examiner) the rules are based on observed behavior (experimental, or studies) of group of viewers.

Hendricks teaches as follows: (see col. 66 line 63 to col. 67 line 6)

As an alternative to gathering demographic data, a **simulated profile can be generated using an algorithm similar to that described below that analyzes access history and viewing habits.**

Using test information generated from a statistically significant number of viewers, the simulated profile algorithm estimates the viewer's age, education, sex and other relevant information. The analysis requires reviewing the viewer's programs watched and statistically comparing the viewer's programs watched with the test group. Also, the algorithm can place the subscriber or viewer in a viewer category. This analysis is transparent from the subscriber's point of view and attempts to accurately profile the viewer. Various viewers or viewer categories can later be targeted with different advertisements. Hendricks test information generated from a statistically significant number of viewers is considered a study (a study of viewers' behavior). Hendricks also teaches rules used for estimating user's age, education, sex, etc.; which is the same as Appellant's rules disclosed in fig. 12. (i.e., “soap operas” are watches by housewives (determining gender). Hendricks teaches rules that link an individual's viewing characteristics to demographic characteristics such as gender, age, and income level and a second type of rules that links particular programs to particular audience, as illustrated by a gender determining rule 1250 which links the program category 444/sub-category 446 with a gender.

Ho, in addition to Hendricks, also teaches heuristically determining user preference by statistics based on preference of similar students (study of students). Ho teaches for example students within certain age group living in Sunnyvale, California prefer certain types of toys or games; such information can be found through market research (see col. 7 lines 5-24). Even though same as Hendricks Ho also does not explicitly use the term pre-defined, it is pre-determined that certain age group prefer certain type of toys or games. Pirolli teaches use of pre-defined or pre-determined heuristic rules applied to characteristics to determine the category of a page (see col. 5 lines 19-25. Pirolli also teaches if 200 users are simultaneously navigating the pages within a site how does one determine which users took which path? The technique implemented to determine user's paths utilizes the web locality's topology along with several heuristics... If ambiguity is suspected, predetermined heuristics are used to disambiguate user paths (see col. 6 lines 33 to col. 7 line 5). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to use a pre-define rule in Hendricks in order to automatically determine the unknown result based on the prior results.

In regards to Appellant's argument that Hendricks, Ho and Pirolli are not properly combinable, Examiner stated the "reason that would have promoted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed". Therefore, it is unclear why Appellant argues that the Examiner failed to point to or otherwise establish an "apparent reason to combine the known elements in Hendricks, Ho and Pirolli.

In response to Appellant's argument that Ho is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order

to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Ho used heuristic rule to determine or predict unknown user's characteristics by **statistics** based on the **preference of similar students** (user behavior or action which a psychological or sociological study).

Regarding claim 153 Appellant argues Ho does not teach or suggest a "heuristic rule which has been developed through the application of at least two types of analysis selected from the group consisting of logic tests, statistical estimates, self-learning, experiments, market studies, human knowledge and experience. Examiner respectively disagrees. As defined above Heuristics are "rules of thumb, **educated guesses, intuitive judgments or simply common sense**. Therefore, by definition heuristic rule include "human knowledge" and "experience". Heuristic rules are also defined as *self-learning* approach based on knowledge of prior results based on experiments conducted in statistics and other fields. Ho also teaches determining users characteristics by **statistics** based on the preference of similar students (obtained through **market research**) (see col. 7 lines 5-23). Therefore, Ho's heuristic rule is developed based on at least two types of analysis; market research and statistics. Examiner respectively disagrees that Ho's determination is current action and excludes it from teaching a rule which has been pre-defined or developed on a study, since it is developed at the moment of implementation. Examiner also would like to point out that pre-defined does not mean before implementation. The claim recited "retrieving heuristic rules wherein said **heuristic rules have been pre-defined prior to accessing said plurality of consumer transaction records** and applying the pre-defined rules to said plurality of consumer records to generate characteristics of consumers. Pirolli teaches a pre-determined rule.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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